

REMARKS

The present invention relates to solar modules comprising at least one solar cell, a front side composed of a transparent polyurethane and a rear side and to a process for the production of such solar modules.

Applicants confirm their election to prosecute Claims 1-8 directed to the solar modules in response to the Examiner's requirement under 35 U.S.C. § 121. Claims 9-11 will be cancelled upon receipt of a notice that Claims 1-8 are allowable.

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Vaverka et al (U.S. Patent 5,667,595). Applicants respectfully traverse this rejection.

Vaverka et al discloses solar modules containing a front **glass** plate, a rear support plate and solar cells placed between these plates. The hollow space between the plates is filled with a cast polyether-polyurethane resin.

Applicants' claimed invention requires a front "side" composed of transparent polyurethane. "Side" is defined in Webster's New Collegiate Dictionary at page 1077 (copy enclosed) as "a surface forming a border or face of an object" or "an outer portion of something considered as facing in a particular direction <the upper side of a sphere>".

Vaverka et al does not teach a solar module having a front side composed of transparent polyurethane. The front side of the Vaverka et al solar module is composed of glass.

The teachings of Vaverka et al do not therefore anticipate Applicants' claimed invention.

Withdrawal of this rejection is therefore requested.

Claims 4-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vaverka et al (U.S. Patent 5,667,595) as applied to Claim 1 above and further in view of Shiomi et al (U.S. Patent 6,245,987). Applicants respectfully traverse this rejection.

As has already been discussed, Vaverka et al requires a front side which is composed of glass and **not** the transparent polyurethane required in Applicants' claimed invention. Vaverka et al does not contain any teaching which would lead

one skilled in the art to modify the disclosed solar modules to replace the glass front plate with any other material much less the transparent polyurethane required in the present invention.

Shiomi et al discloses solar cell modules but does **not** teach or suggest a solar cell module having a front side composed of transparent polyurethane.

The teachings of Shiomi et al and Vaverka et al can not therefore be combined in any manner which would lead one skilled in the art to a solar module having a front side composed of transparent polyurethane. The combined teachings of Vaverka et al and Shiomi et al do not therefore support the rejection of Applicants' claimed invention which requires a front side composed of transparent polyurethane.

Withdrawal of this rejection is therefore requested.

Claims 7-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vaverka et al (U.S. Patent 5,667,595) as applied to Claim 1. Applicants respectfully traverse this rejection.

As has already been discussed, Vaverka et al does not disclose a solar module having a front side composed of transparent polyurethane as is required in the present invention. Nor does Vaverka et al suggest that the glass plate required in the reference solar modules could be replaced with any other material, much less transparent polyurethane.

The teachings of Vaverka et al can not therefore be construed in any manner which would render obvious Applicants' invention requiring a transparent polyurethane front side.

Withdrawal of this rejection is therefore requested.

In view of the above remarks, reconsideration and allowance of Claims 1-8
are respectfully requested.

Respectfully submitted,

By 
Lyndanne M. Whalen
Attorney for Applicants
Reg. No. 29,457

Bayer Polymers LLC
100 Bayer Road
Pittsburgh, Pennsylvania 15205-9741
(412) 777-3843
FACSIMILE PHONE NUMBER:
(412) 777-3902

/jme/LMW/LW0748

BEST AVAILABLE COPY

△A
➤B

New Collegiate Dictionary

© Merriam-Webster®

G. & C. MERRIAM COMPANY
Springfield, Massachusetts, U.S.A.

BEST AVAILABLE COPY

1077

sibilant © sidehill

sibilant \sib-i-lənt\ adj [L *sibilans*, pp. of *sibilare* to hiss, whistle, or imitate, origin]: having, containing, or producing the sound of or a sound resembling that of the *s* or the *sh* in *sash* <a ~ affricate> <a ~ snake> — **sibilantly** adv
sibilant n: a sibilant speech sound (as English *s*, *z*, *sh*, *zh*, *tch*=*tsh*, or *v=dzh*)
sibilate\sib-i-lāt\ vb -lat-ed; -lat-ing [L *sibilatus*, pp. of *sibilare*] vi 1: HISS 2: to utter an initial sibilant: prefix an *s*-sound ~ vi 1: HISS 2: to pronounce with an initial sibilant: prefix an *s*-sound to ~ **sibilation**\sib-i-lā-tōn\ n
sibling\sib-ling\ n : sis 2: also : one of two or more individuals having one common parent
sibling species n : one of two or more species that are nearly indistinguishable morphologically
sibyl\sib-əl\ n, often cap [ME *sibile*, *sybille*, fr. MF & L: MF *sibile*, fr. L *sibylla*, fr. Gr.] 1: any of several prophetesses usually accepted as 10 in number and credited to widely separate parts of the ancient world (as Babylon, Egypt, Greece, and Italy) 2: a female prophet: FORTUNE-TELLER — **sibyllic** \sib-i-lɪk\ adj — **sibylline**\sib-i-līn\ adj
sic\sik\ chiefly Scot var of SUCH
sic or sick\sik\ vt **sickened** or **sicked**\sik\ : **siccing** or **sicking** [alter. of seek] 1: CHASE, ATTACK — usu. used as an imperative esp. to a dog <~ 'em> 2: to incite or urge to an attack, pursuit, or harassment: SET
sic\sik\, **sek**\ adj [L, so, thus — more as so]: intentionally so written — used after a printed word or passage to indicate that it is intended exactly as printed or to indicate that it exactly reproduces an original <said he seed [~] it all>
sicca-tive\sik-ə-tiv\ n [LL *siccatus* making dry, fr. L *siccatus*, pp. of *siccari* to dry, fr. *siccus* dry — more at SACK] 1: DRIER 2: MACABRE, SADISTIC <~ jokes> 3: lacking vigor: SICKLY: as a badly outclassed <looked ~ in the contest> b: declining or inactive after a period of speculative activity <grain futures were ~> c: incapable of yielding a profitable crop esp. because of buildup of disease organisms <clover-sick soils>
sick and tired adj: thoroughly fatigued or bored
sick bay n : a compartment in a ship used as a dispensary and hospital; broadly: a place for the care of the sick or injured
sick-bed\sik-bēd\ n : the bed upon which one lies sick
sick call n 1: a usu. daily formation at which individuals report as sick to the medical officer 2: the period during which sick call is held
sick-en\sik-en\ vb **sickened**; **sick-en-ing** \sik-niŋ\ vt 1: to make sick 2: to cause revulsion in as a result of weariness or satiety ~ vi 1: to become sick 2: to become weary or sated
sick-en-er\sik-(ə)-nər\ n : something that sickens, disgusts, or overwhelms
sick-en-ing\sik-niŋ\ adj : causing sickness: NAUSEATING <a ~ odor> — **sick-en-ing-ly** \sik-niŋ-le\ adv
sick-er\sik-ər\ adj [ME *siker*, fr. OE *sicor*; akin to OHG *sichor* secure; both fr. a prehistoric WGmc word borrowed fr. L *securus* secure] chiefly Scot: SECURE, SAFE: also: DEPENDABLE — **sicker** adv
sick-er-ly \sik-ər-ly\ adv, chiefly Scot: in a secure manner: SAFELY
sick headache n : MIGRAINE
sick-ish\sik-ish\ adj 1: archaic: somewhat ill: SICKLY 2: somewhat nauseated: QUEASY 3: somewhat sickening <a ~ odor> — **sick-ish-ly** \sik-ish-le\ adv — **sick-ish-ness** n
sickle\sik-kəl\ n [ME *sikel*, fr. OE *sicel*; akin to OHG *sichila* sickle; both fr. a prehistoric WGmc word borrowed fr. L *secula* sickle — more at SAW] 1: a: an agricultural implement consisting of a curved metal blade with a short handle fitted on a tang b: the cutting mechanism (as of a reaper, combine, or mower) consisting of a bar with a series of cutting elements 2: cap: a group of six stars in the constellation Leo
sickle adj: having the form of a sickle blade: having a curve similar to that of a sickle blade <the ~ moon>
sickle vb **sick-led**; **sick-ling** \sik-(ə)-lin\ vt 1: to mow or reap ~ with a sickle 2: to form (a red blood cell) into a crescent ~ vi 1: to form into a crescent <the ability of red blood cells to ~>
sick leave n 1: an absence from work permitted because of illness 2: the number of days per year for which an employer agrees to pay employees who are sick
sick-le-bill\sik-al-bil\ n : any of various birds (as a curlew or thrasher) with a strongly curved bill
sickle cell n : an abnormal red blood cell of crescent shape
sickle-cell anemia n : a chronic inherited anemia in which a large proportion or the majority of the red blood cells tend to sickle, which occurs primarily in individuals of Negro ancestry, and which is held to result from homozygosity for a semidominant gene
sickle-cell trait n : an inherited blood condition in which some red blood cells tend to sickle but usu. not enough to produce anemia, which occurs primarily in individuals of Negro ancestry, and which is held to result from heterozygosity for a semidominant gene — called also **sicklemia**
sickle feather n : one of the long curved tail feathers of a cock — see COCK illustration
sickle-mia\sik-ə-mē-ə\ n [NL, fr. E *sickle* (cell) + NL *-emia*] : SICKLE-CELL TRAIT
sick-ly\sik-ly\ adj 1: somewhat unwell: also: habitually ailing 2: produced by or associated with sickness <a ~ complexion> <a ~ appetite> 3: producing or tending to produce disease: UN-
wholesome <a ~ climate> 4: appearing as if sick: a : LAN-GUID, PALE <a ~ flame> b : WRETCHED, UNEASY <a ~ smile> c : lacking in vigor: WEAK <a ~ plant> <a ~ beer> 5: a : tending to produce nausea <a ~ odor> b : MAWKISH — **sick-ness** n — **sick-ly** or **sick-li-ly** \sik-lik\ adv
sickly vt **sick-licked**; **sick-ly-ing** : to make sick or sickly
sick-ness \sik-nəs\ n : ill health: ILLNESS b: a disordered, weakened, or unsound condition (as of society or a particular institution) 2: a specific disease 3: NAUSEA, QUEASINESS
sick pay n : salary or wages paid to an employee while on sick leave
sick-room\sik-rūm, -rūm\ n : a room in which a person is confined by sickness
sic pas-sim\sik-pä-sim\, **sék-pä-sim**\ adj [L]: so throughout — used of a word or idea to be found throughout a book or a writer's work
sid-dur\sidd-ər, -dūr\ n, pl **sid-du-rim** \sā-dür-əm\ [MHeb *siddur*, lit., order, arrangement]: a Jewish prayer book containing both Hebrew and Aramaic prayers used in the Ashkenazic daily liturgy
side\sīd\ n [ME, fr. OE *side*: akin to OHG *sita* side, OE *sid* ample, wide, *swiwan* to sow — more at SOW] 1: a: the right or left part of the wall or trunk of the body <a pain in the ~> b (1) : one of the halves of the animal body on either side of the mesial plane (2): a cut of meat including that about the ribs of one half of the body — used chiefly of smoked pork products c: one longitudinal half of a hide 2: a place, space, or direction with respect to a center or to a line or division (as of an aisle, river, or street) 3: a surface forming a border or face of an object 4: an outer portion of something considered as facing in a particular direction <the upper ~ of a sphere> 5: a slope or declivity of a hill or ridge 6: a: a bounding line of a geometrical figure <each ~ of a square> b: one of the surfaces that delimit a solid; esp: one of the longer surfaces c: either surface of a thin object <one ~ of a record> <right ~ of the cloth> 7: the space beside one <he never left her ~> 8: the attitude or activity of one person or group with respect to another: PART 9: a body of partisans or contestants <victory for neither ~> 10: a line of descent traced through one's parent <grandfather on his mother's ~> 11: an aspect or part of something viewed as contrasted with some other aspect or part <the better ~ of his nature> 12: a position viewed as opposite to or contrasted with another <two ~s to every question> 13: Brit: sideways spin imparted to a billiard ball 14: a sheet containing the lines and cues for a single theatrical role syn see PHASE — **on the side** 1: in addition to the main portion 2: in addition to a principal occupation
side adj 1: a: of or relating to the side b: situated on the side <~ window> 2: a: directed toward or from the side <~ thrust> <~ wind> b: INCIDENTAL, INDIRECT <~ issue> <~ remark> c: made on the side <~ payment> d: additional to the main portion <~ order of french fries>
side vb **sid-ed**; **sid-ing** vt 1: to agree with: SUPPORT 2: to be side by side with 3: to set or put aside: clear away <~ dishes> 4: to furnish with sides or siding <~ a house> ~ vi: to take sides: join or form sides <sided with the rebels>
side n [Obs. E side (proud, boastful)]: swaggering or arrogant manner: PRETENTIOUSNESS
side-arm\sīd-är̄m\ adj: of, relating to, or constituting a baseball pitching style in which the arm is not raised above the shoulder and the ball is thrown with a sideways sweep of the arm between shoulder and hip <~ delivery> — **sidearm**\sīd-är̄\ adv
side arm n : a weapon (as a sword, revolver, or bayonet) worn at the side or in the belt
side-band\sīd-bānd\ n : the band of frequencies (as of radio waves) on either side of the carrier frequency produced by modulation
side bearing n : the space provided at each side of a typeset letter to prevent its touching adjoining letters
side-board\sīd-bōrd\, -bōd(r)d\ n : a piece of dining-room furniture having compartments and shelves for holding articles of table service
side-burns\sīd-bōrnz\ n pl [anagram of *burnsides*] 1: SIDE-WHISKERS esp: short side-whiskers worn with a smooth chin 2: continuations of the hairline in front of the ears — **side-burned**\sīd-bōrn̄d\ adj
side by side adv 1: beside one another <walked side by side down the aisle> 2: in the same place, time, or circumstance <lived peacefully side by side for many years> — **side-by-side** adj
side-car\sīd-kār\ n 1: a car attached to a motorcycle for a passenger seated abreast of the cyclist 2: a cocktail consisting of a liqueur with lemon juice and brandy
sided\sīd-ed\ adj: having sides often of a specified number or kind <one-sided> <glass-sided> — **sided-ness** n
side dish n : one of the foods subordinate to the main course
side-dress\sīd-dres\ n 1: plant nutrients used to side-dress a crop 2: the act or process of side-dressing a crop
side-dress vi : to place plant nutrients on or in the soil near the roots of a growing crop often by means of a cultivator having a fertilizer-distributing attachment
side-dressing n : SIDEDRESS
side drum n : SNARE DRUM
side effect n : a secondary and usu. adverse effect (as of a drug) <toxic side effects> — called also **side reaction**
side-glance\sīd-glan(t)s\ n 1: a glance directed to the side 2: a passing allusion: an indirect or slight reference
side-hill\sīd-hill\ n : HILLSIDE

a abut a kitten ar further a back a bake a cot, cart
 au out cb chin e less è easy g gift i trip i life
 J joke g sing ô flow ô flaw ò coin th thin th this
 ü loot ú foot y yet ü few ý furious zh vision